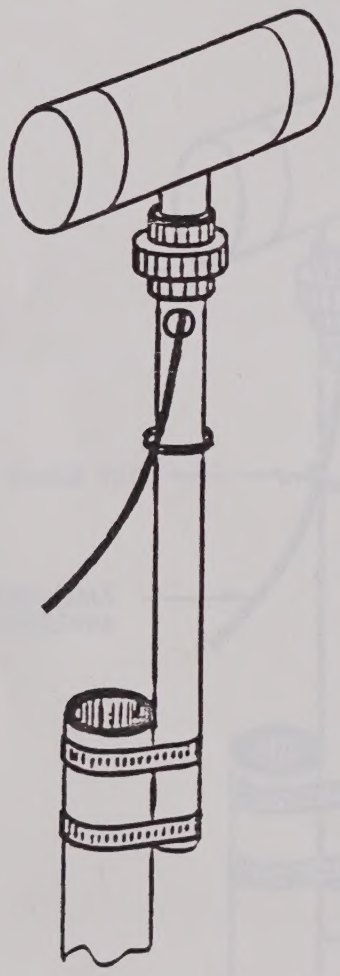
Spectracom® Corporation
101 Despatch Drive
East Rochester, NY 14445-1484
(716) 381-4827 fax (716) 381-4998



MODEL 8206A LOOP ANTENNA

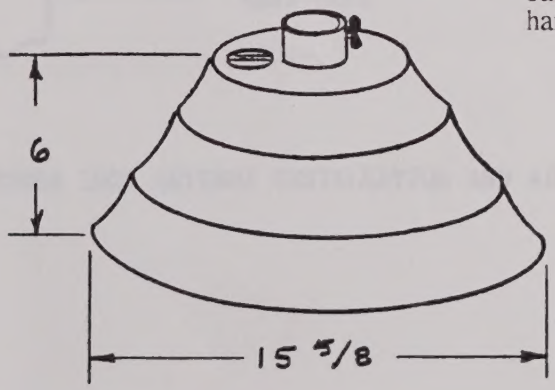
The Model 8206A Loop Antenna receives the 60 kHz time and frequency standard WWVB throughout North America and Station MSF in Europe. The tuned amplifier is powered by the receiver over the coaxial cable. Power required is less than 10 mw. The antenna is housed in a weather-proof PVC enclosure. The mast, two hose clamps, two cable ties, and instructions are included.

ELECTRICAL SPECIFICATIONS:

Frequency	60 kHz ± 0.3 kHz
Bandwidth	1600 hz @ 3 dB points
Equivalent electrical height	5 cm
Minimum field strength	50 uV/meter
Temperature range	-30 to 70°C
Connector	BNC, female
Recommended cable	RG58/U
Maximum cable length	1500 feet

MECHANICAL SPECIFICATIONS:

Assembled height	28 inches
Housing length & diameter	10 in. X 2.8 in.
Housing material	PVC
Assembled weight	2.5 lbs.
Shipping weight	4.0 lbs.
Mounting	Hose clamps on vent pipe
Alternate mounting method	Model 8213 Aluminum base w/ballast and hardware



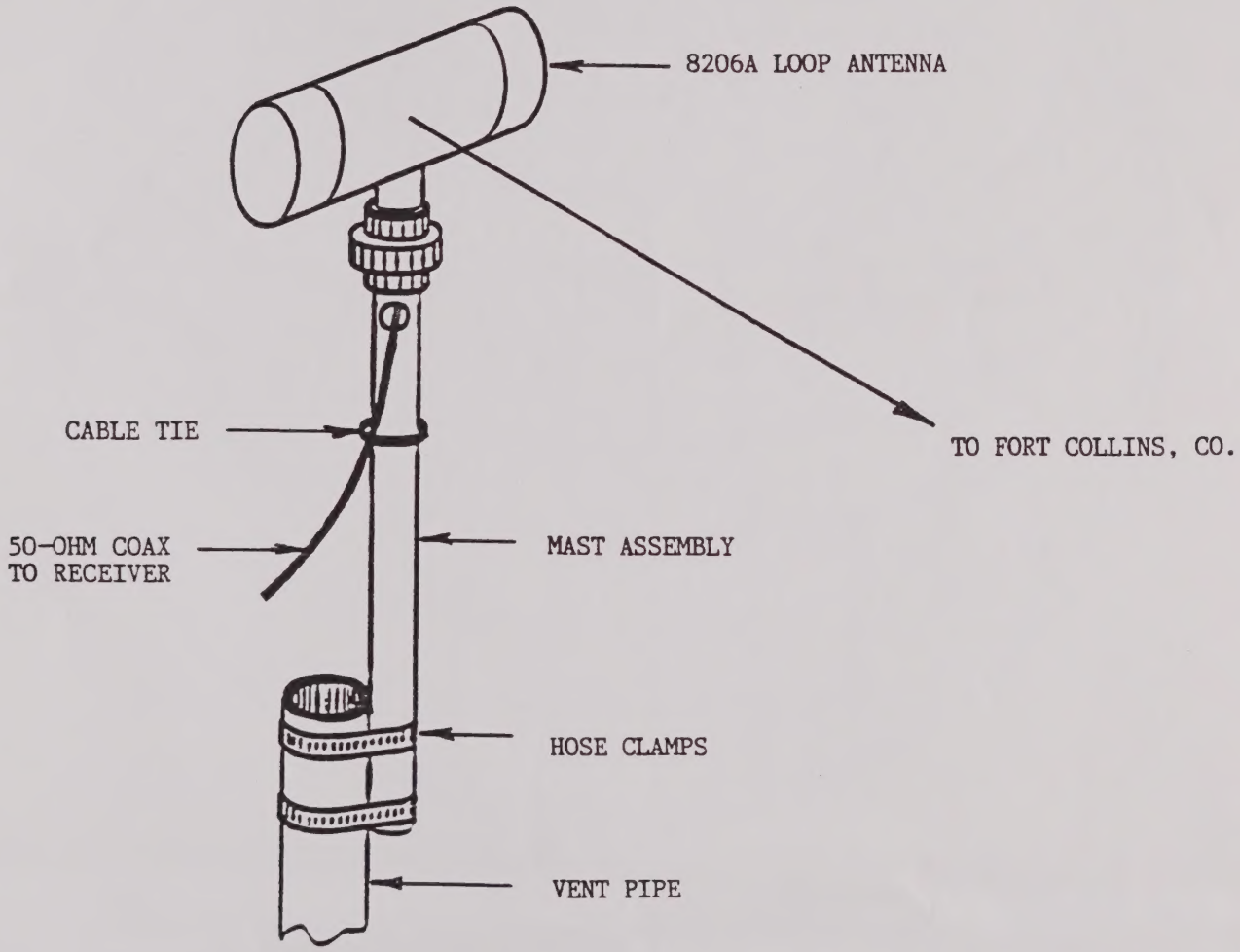


FIGURE 1 8206A LOOP ANTENNA INSTALLATION AND AIMING

Digitized by the Internet Archive
in 2025

https://archive.org/details/manualsplus_10192

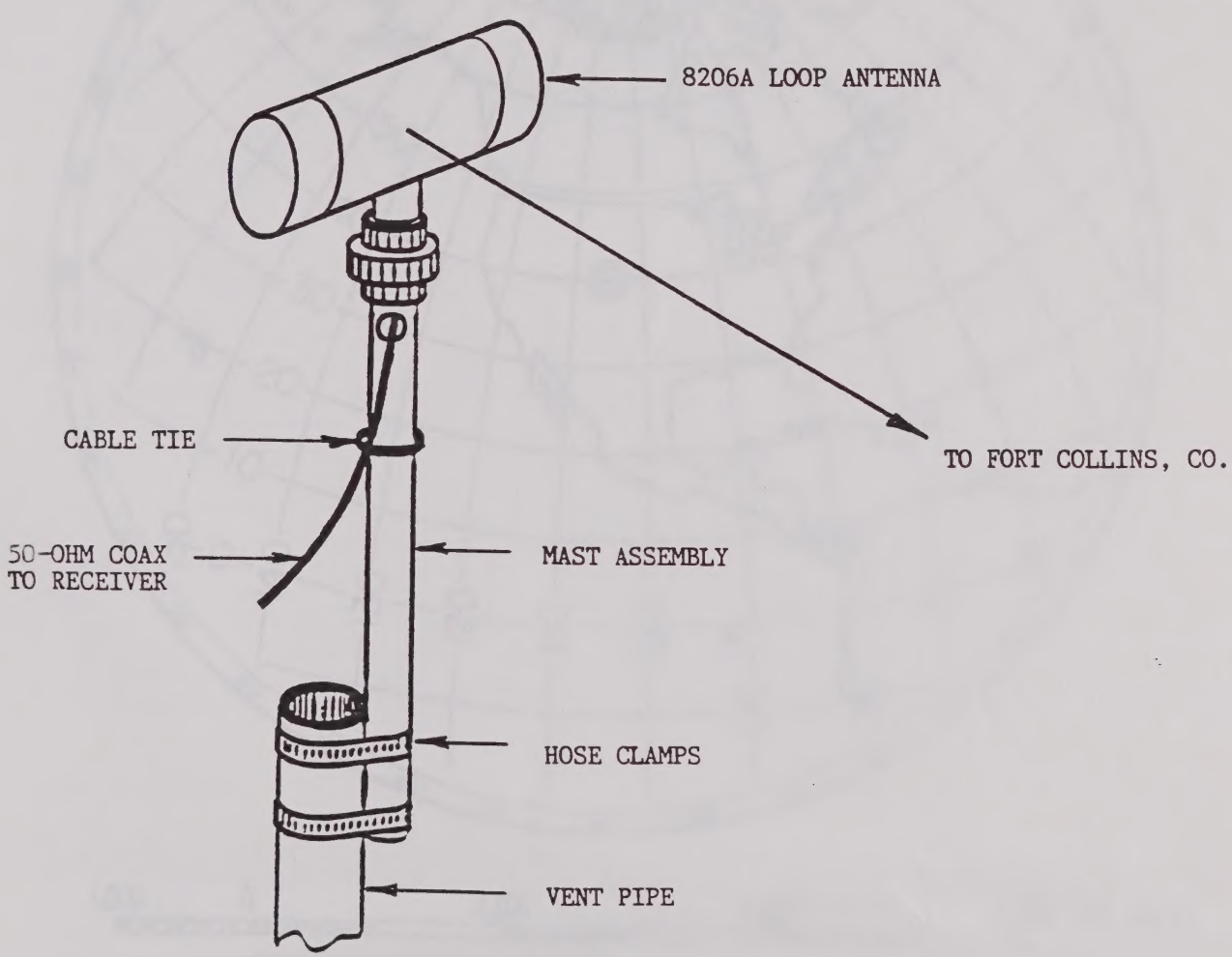
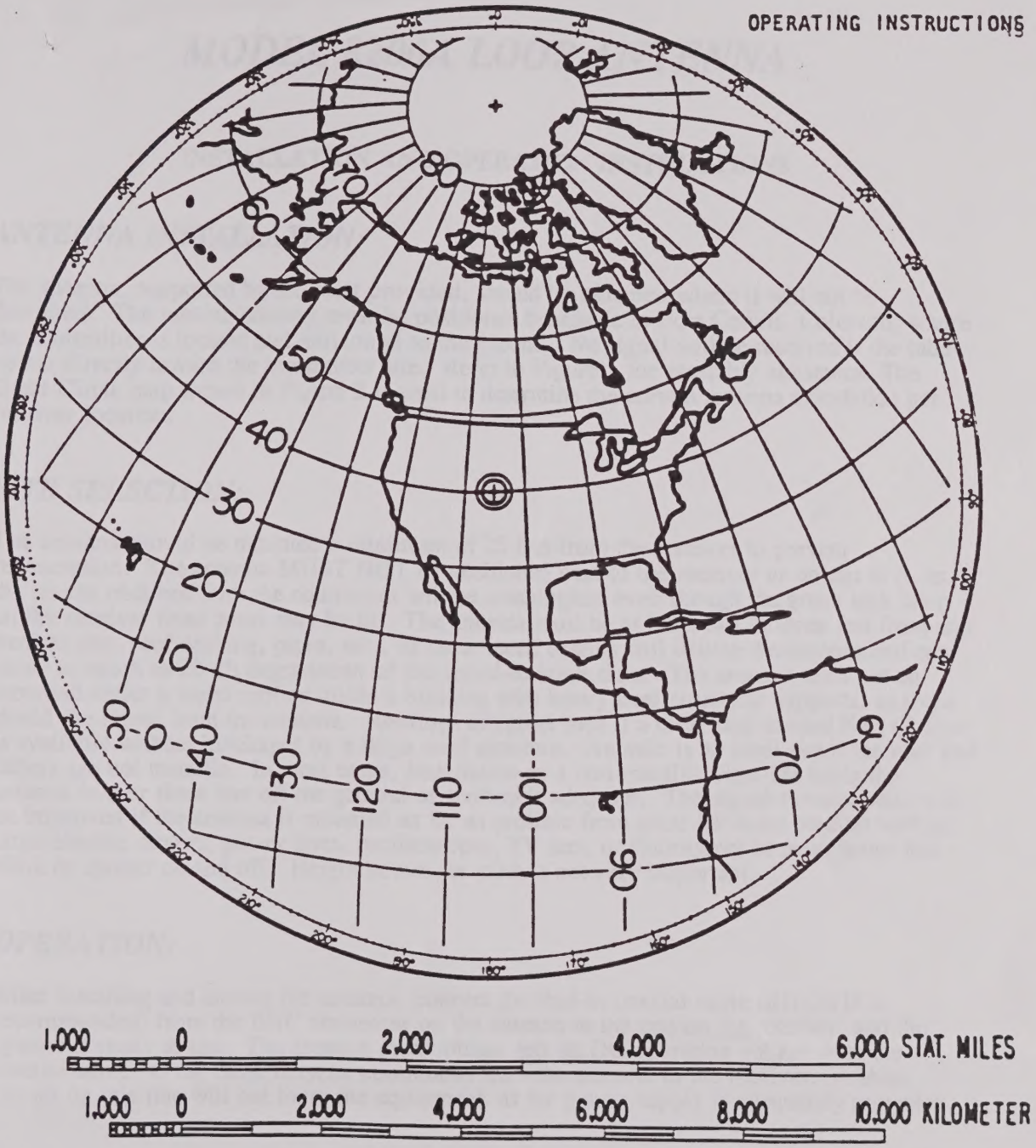


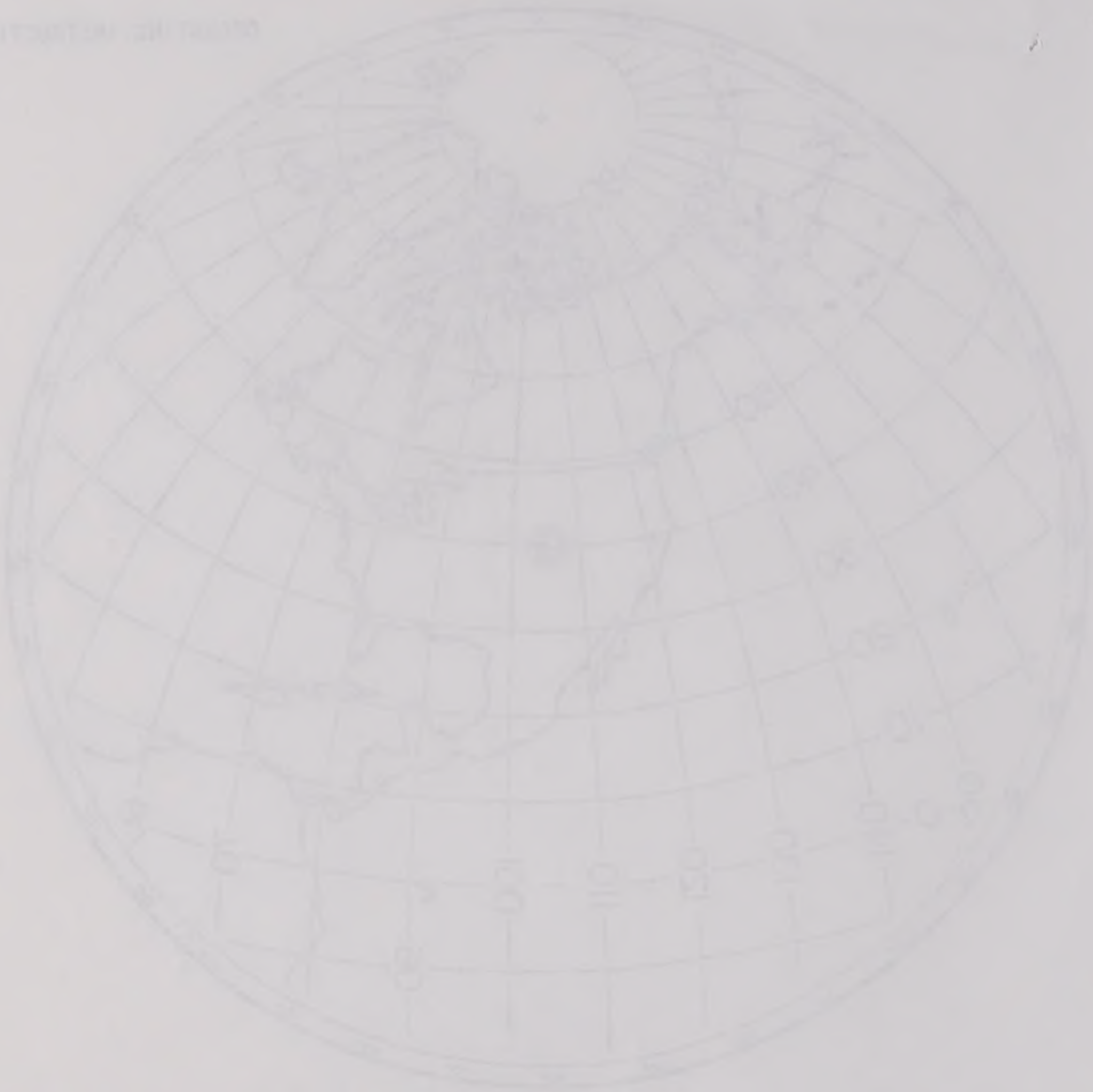
FIGURE 1 8206A LOOP ANTENNA INSTALLATION AND AIMING



TO AIM ANTENNA AT FORT COLLINS, COLORADO, DETERMINE COMPASS HEADING FROM THIS MAP

Draw a straight line from the receiver location through Fort Collins, Colo. at the center of the map. Continue until the line intersects the outer ring. The point at which the line intersects the outer ring indicates the compass heading for Fort Collins from your location.

FIGURE 2 GREAT CIRCLE MAP CENTERED ON FORT COLLINS, COLORADO



MODEL 8206A LOOP ANTENNA

INSTALLATION AND OPERATION INSTRUCTIONS

ANTENNA INSTALLATION:

The antenna, supported by the mast provided, should be mounted where it will not be disturbed. The tubular housing must be positioned broadside to Fort Collins, Colorado, where the transmitter is located and horizontal to the ground. No signal will be received if the tube points directly toward the transmitter site. Refer to Figure 1 for assembly assistance. The Great Circle map shown in Figure 2 is used to determine the correct antenna orientation per receiver location.

SITE SELECTION:

The antenna should be mounted a minimum of 25 feet from the receiver to prevent regeneration. The antenna MUST NOT be positioned next to the receiver or on top of it, as the results obtained with the equipment will be meaningless even though the green lock lamp on the receiver front panel may be lit. The antenna must be at least two or three feet from any steel beams, roof decking, pipes, etc., as these metal objects will detune the antenna and can cause as much as 20 dB degradation of the signal-to-noise ratio. The antenna must not be mounted under a metal roof or inside a building with heavy steel structural supports, as these shield the signal from the antenna. Rooftops are good sites if a clear shot toward Fort Collins is available without blockages by a large steel structure. An attic is an ideal site if the roof and rafters are not metallic. In most cases, installation on a non-metallic pipe that holds the antenna two or three feet off the ground or rooftop is adequate. The signal-to-noise ratio will be improved if the antenna is mounted as far as possible from local RF noise sources such as large electric motors, power lines, oscilloscopes, TV sets, or fluorescent or neon lamps that blink or sputter on and off. Height above the earth is not very important.

OPERATION:

After installing and aiming the antenna, connect the lead-in coaxial cable (RG-58/U is recommended) from the BNC connector on the antenna to the one on the receiver, and the system is ready to use. The antenna preamplifier gets its DC operating voltage over the coaxial cable, so the cable must be continuous from the antenna to the receiver. A short circuit on this line will not harm the equipment, as the power supply is adequately protected.

MAINTENANCE:

The antenna is tuned at the factory before the housing is sealed to protect against the weather. Temperature compensating components are used in the antenna circuits, and it is unlikely that retuning will ever be necessary. Should antenna maintenance become necessary, contact the factory.

MODEL 8206A OPTION 78

OPTION 78

Option 78 is a mast adapter to allow installation of an 8206A Loop Antenna on an existing 8206 Antenna Mast.

If the antenna coaxial cable extends at least seven inches (7") beyond the end of the 8206 Mast, simply thread the adapter onto the old mast and run the cable up through the adapter. Connect the cable to the 8206A and mount the new antenna on top of the adapter.

Aim the antenna broadside to Fort Collins, Colorado as before.

www.manualsplus.com
1035904